

FIG.1

1000

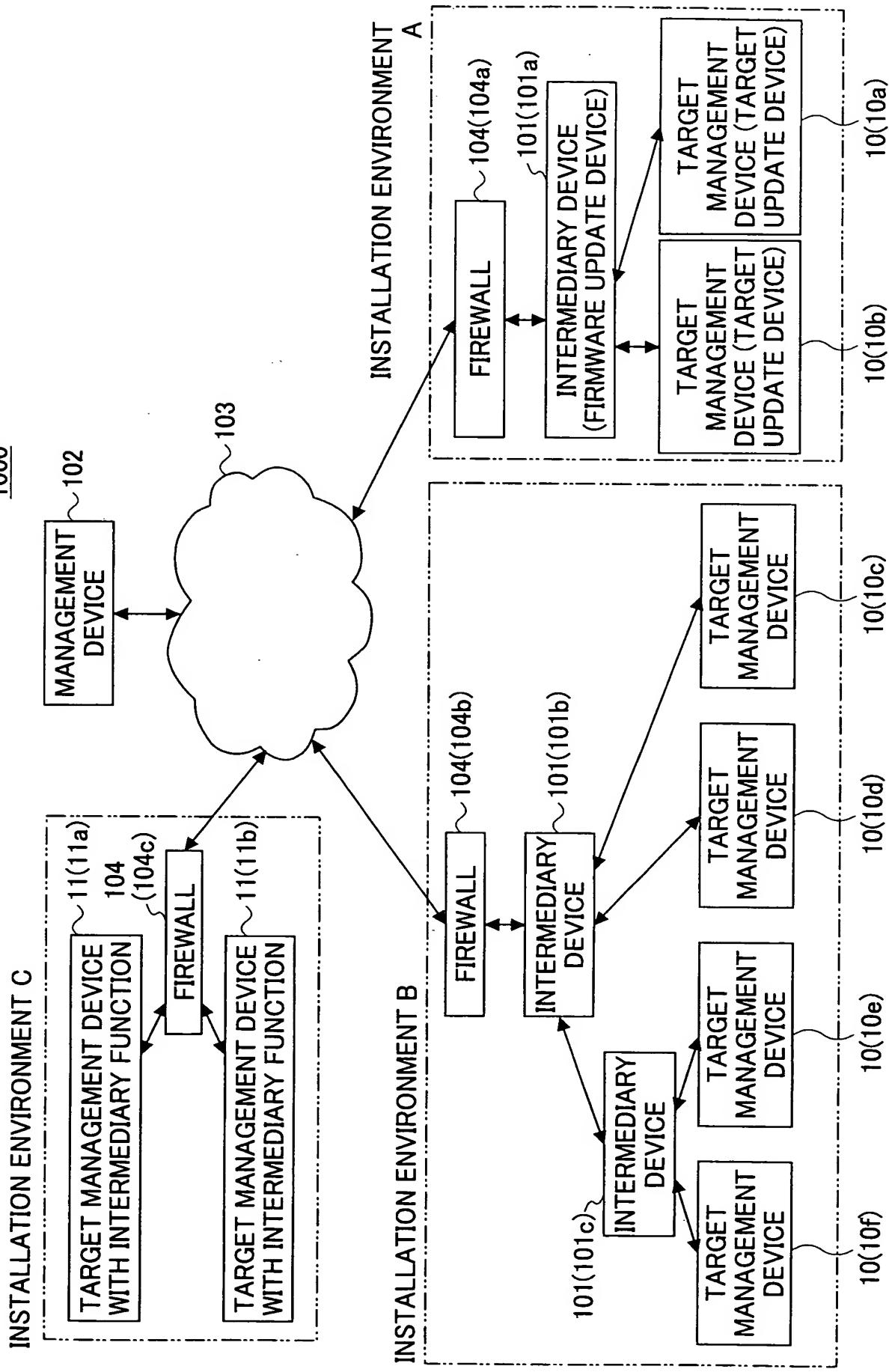


FIG.2A

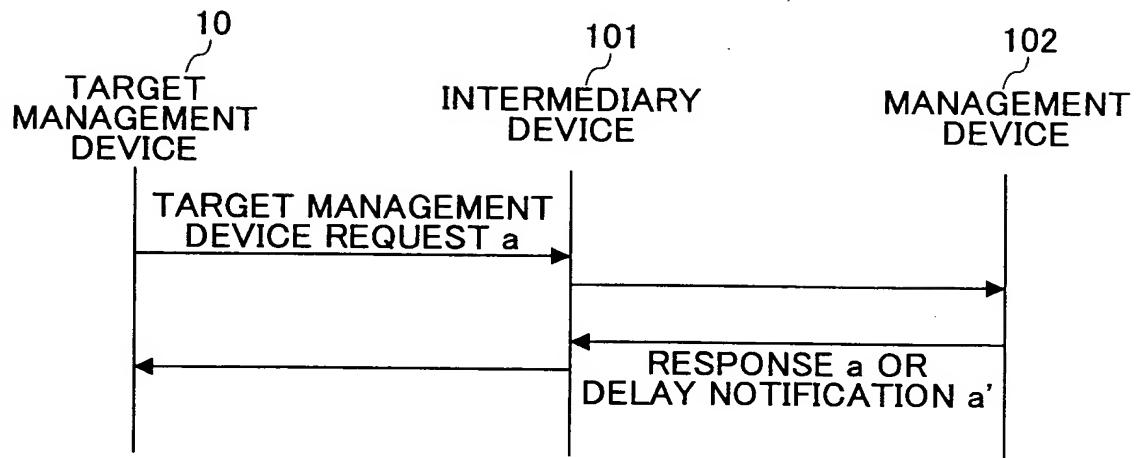


FIG.2B

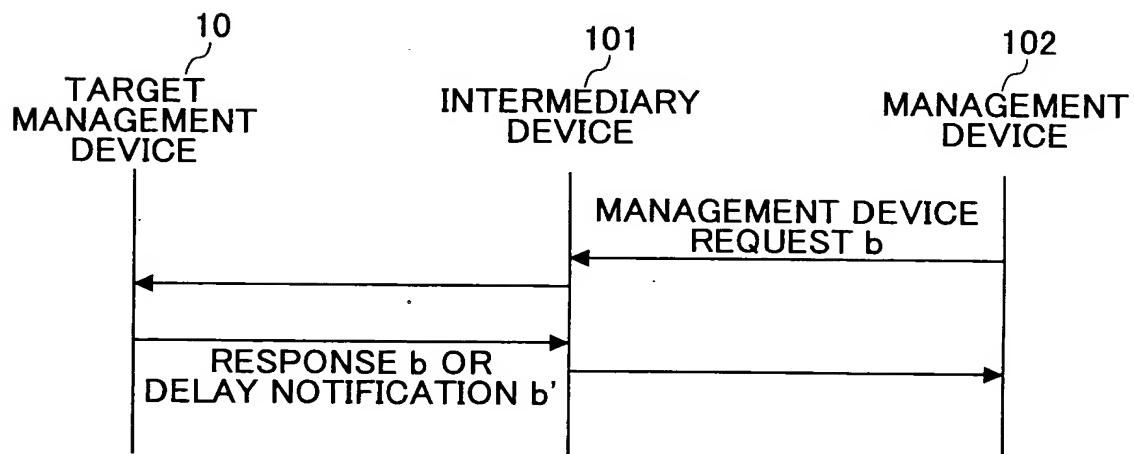


FIG.3

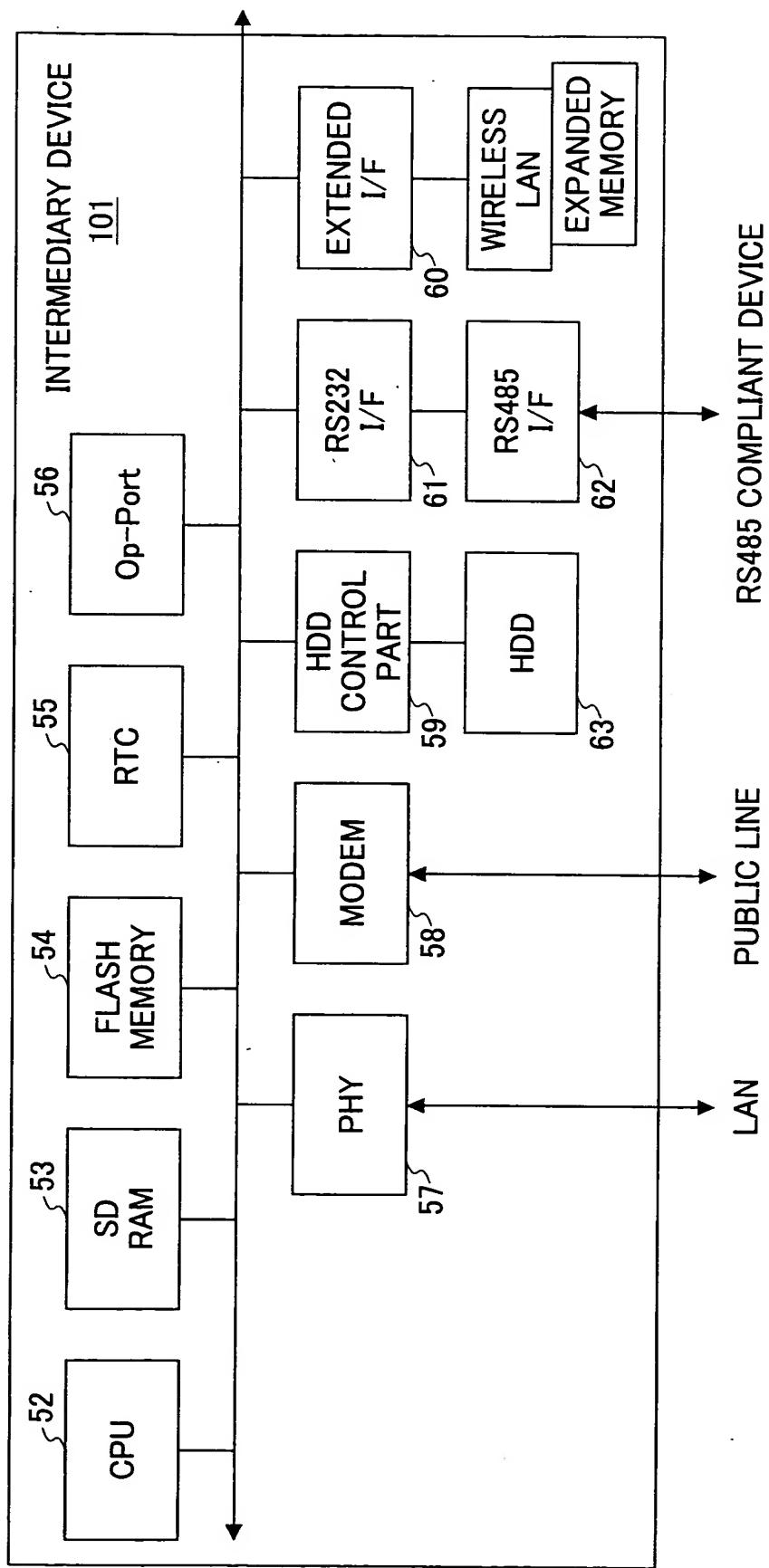


FIG.4

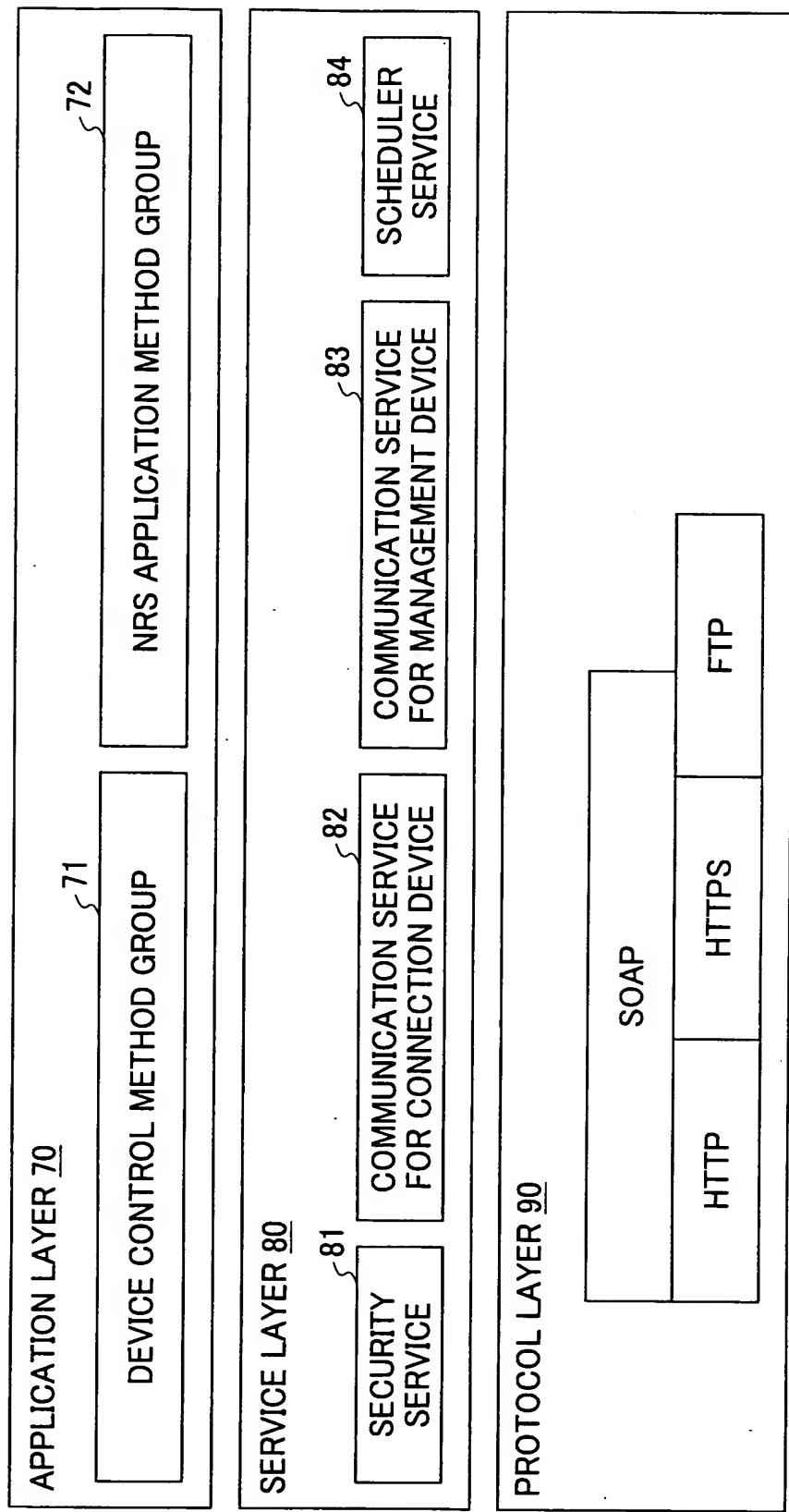


FIG.5

2000

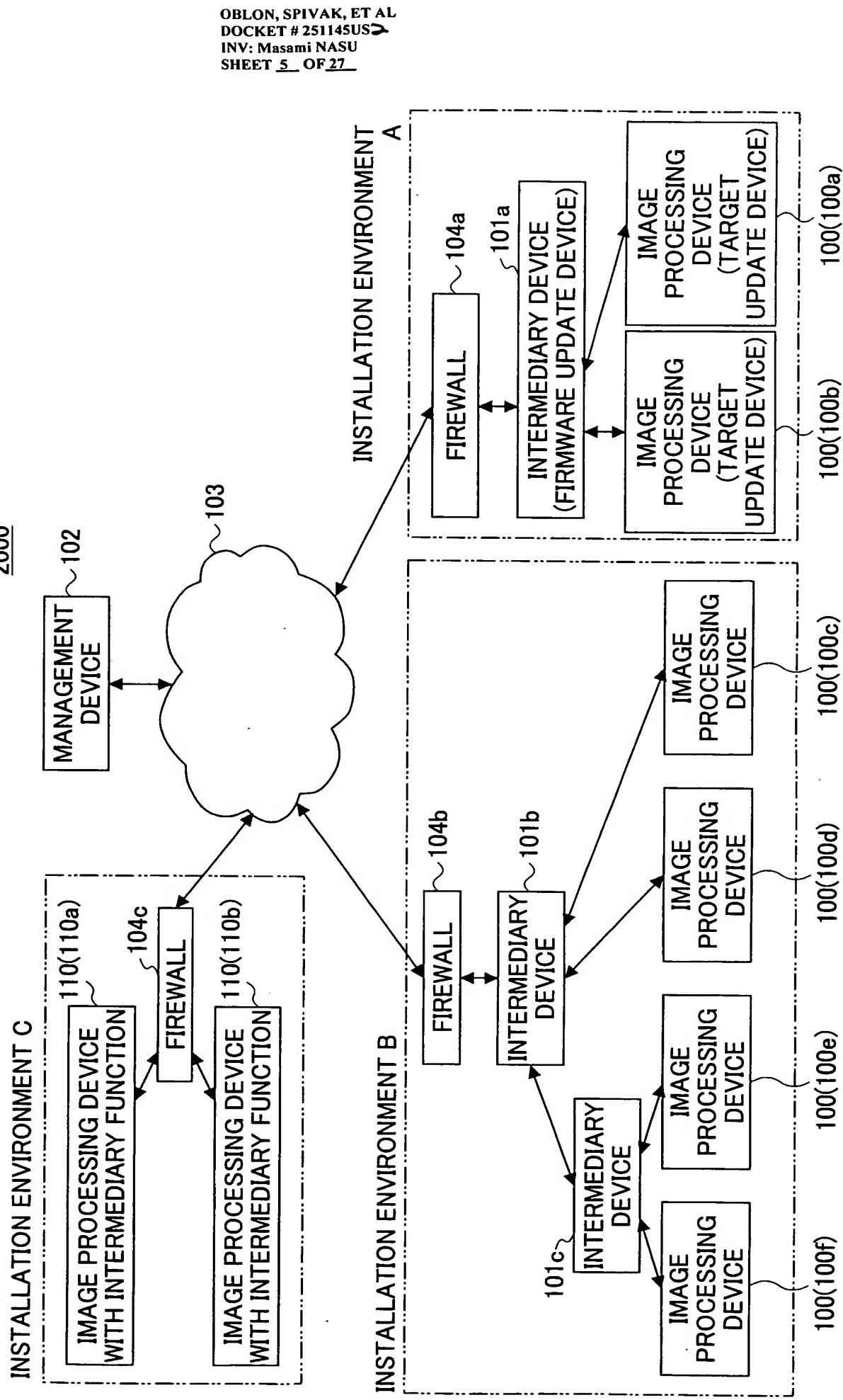


FIG.6

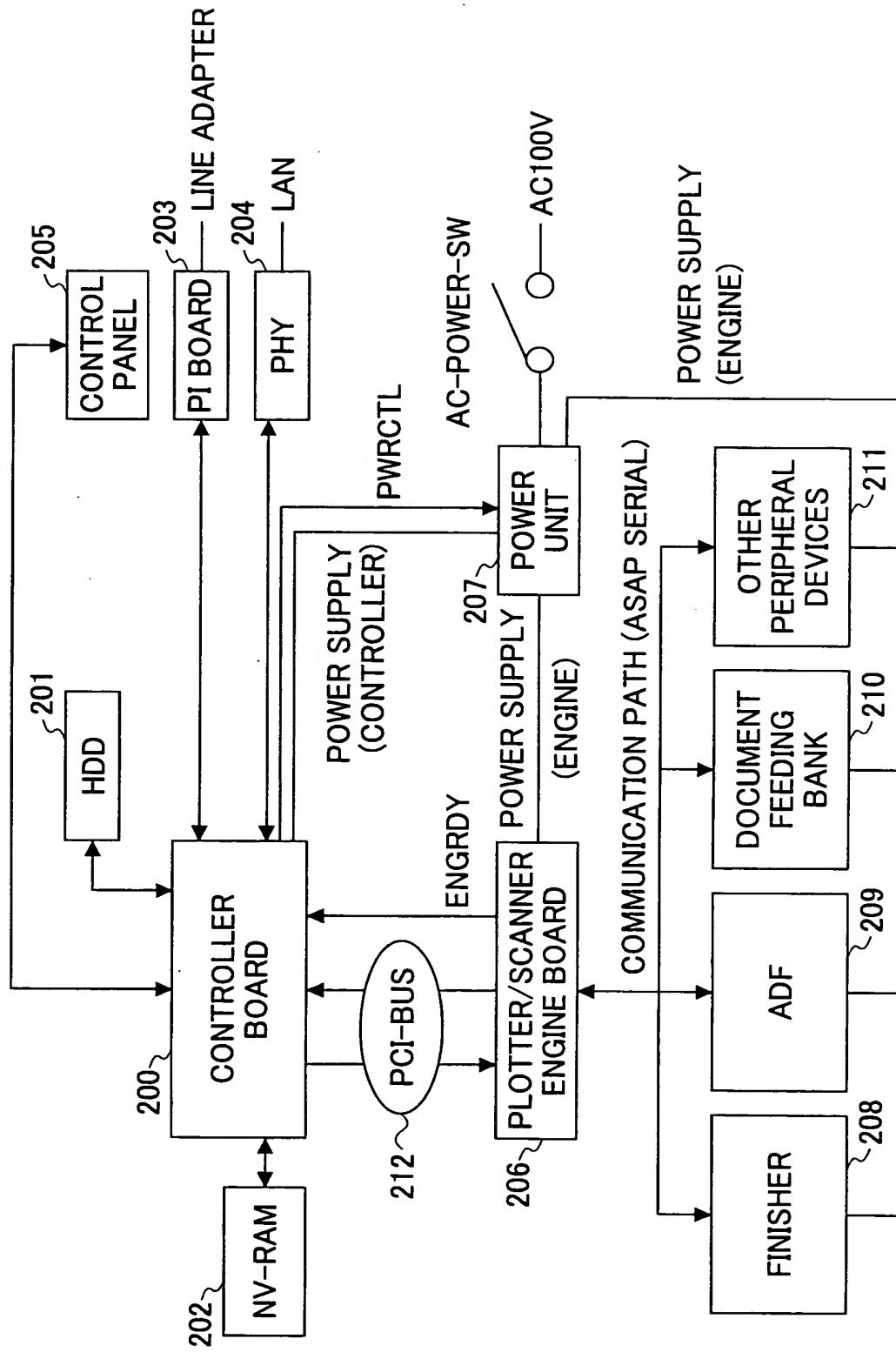
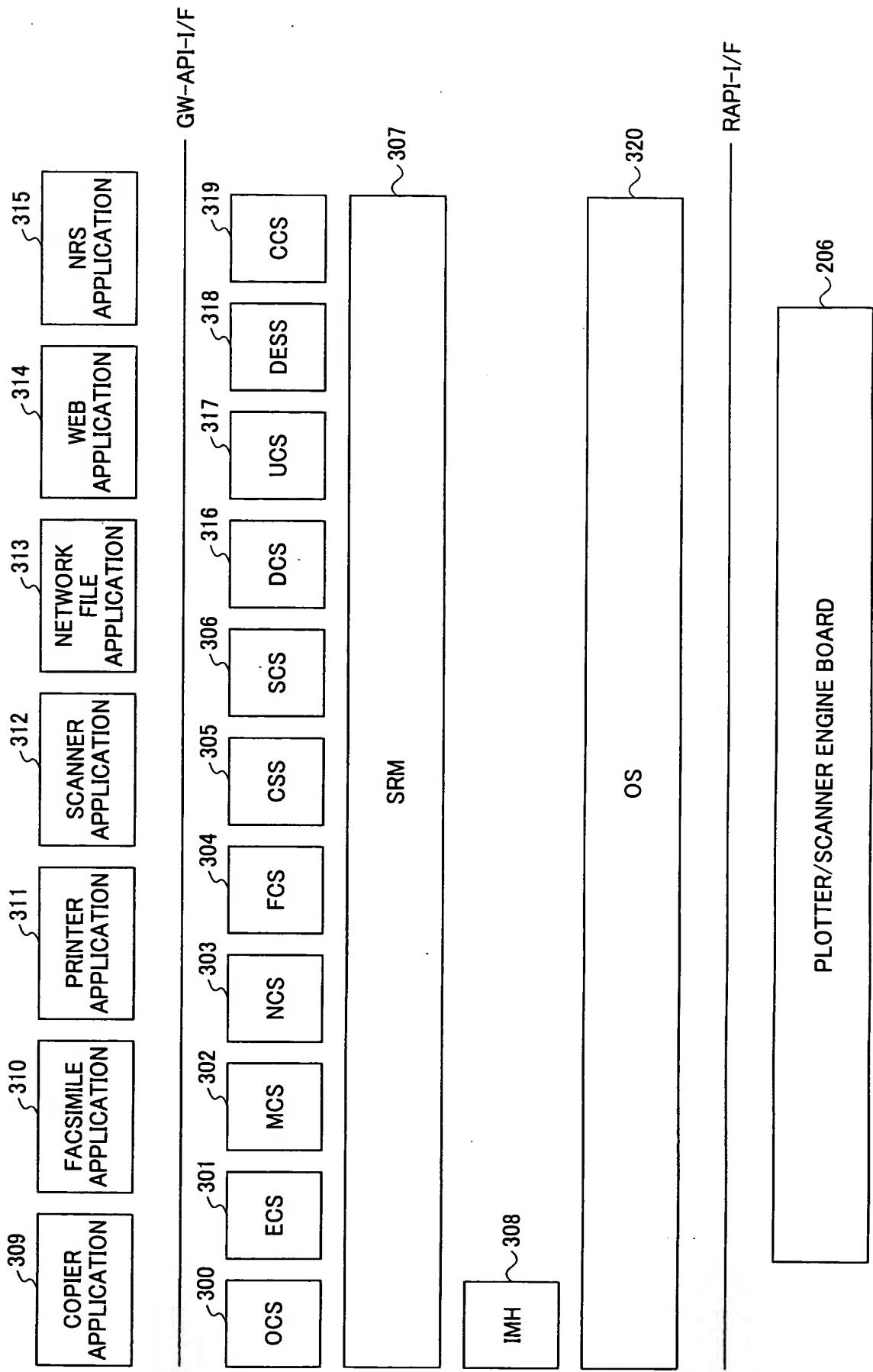


FIG. 7



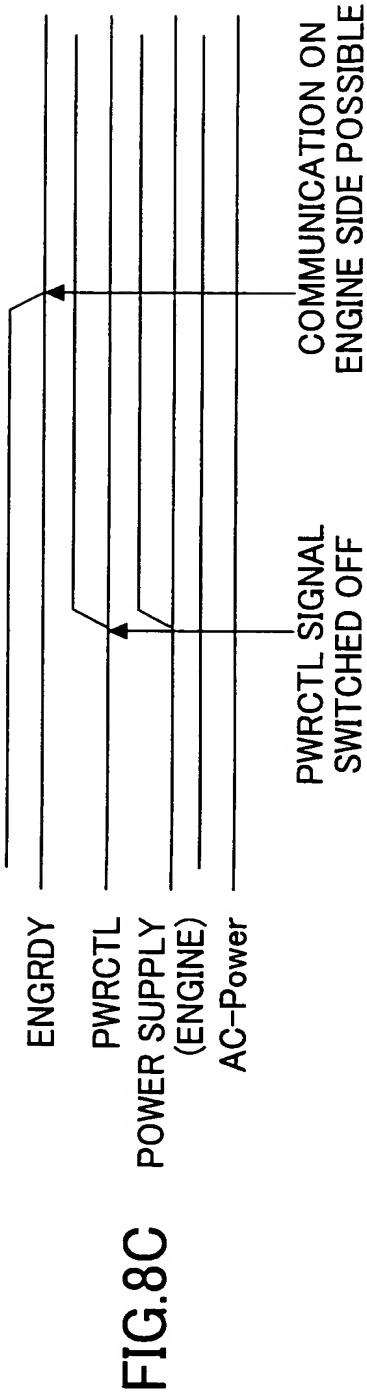
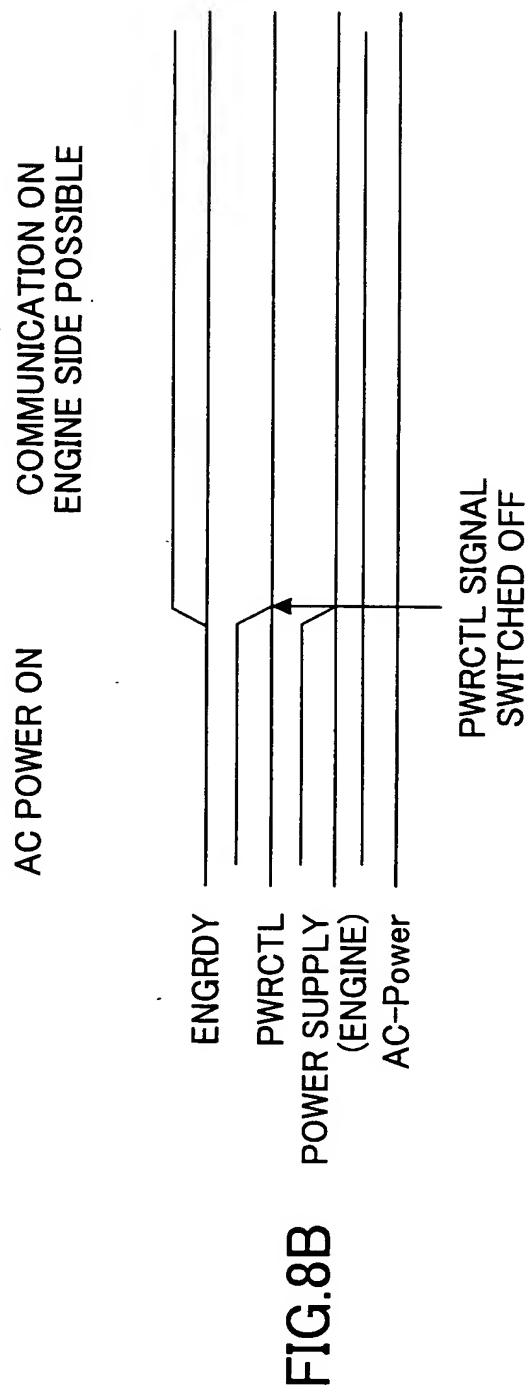
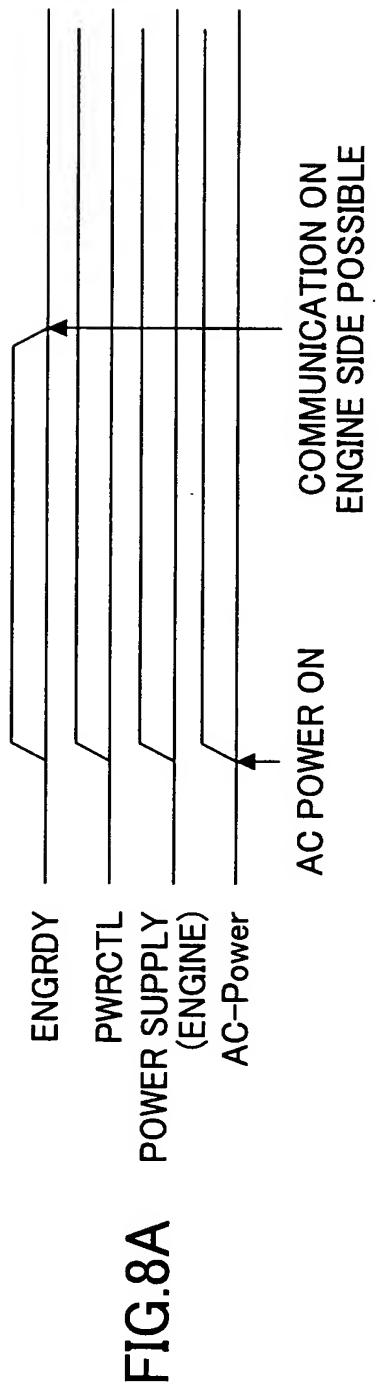


FIG.9

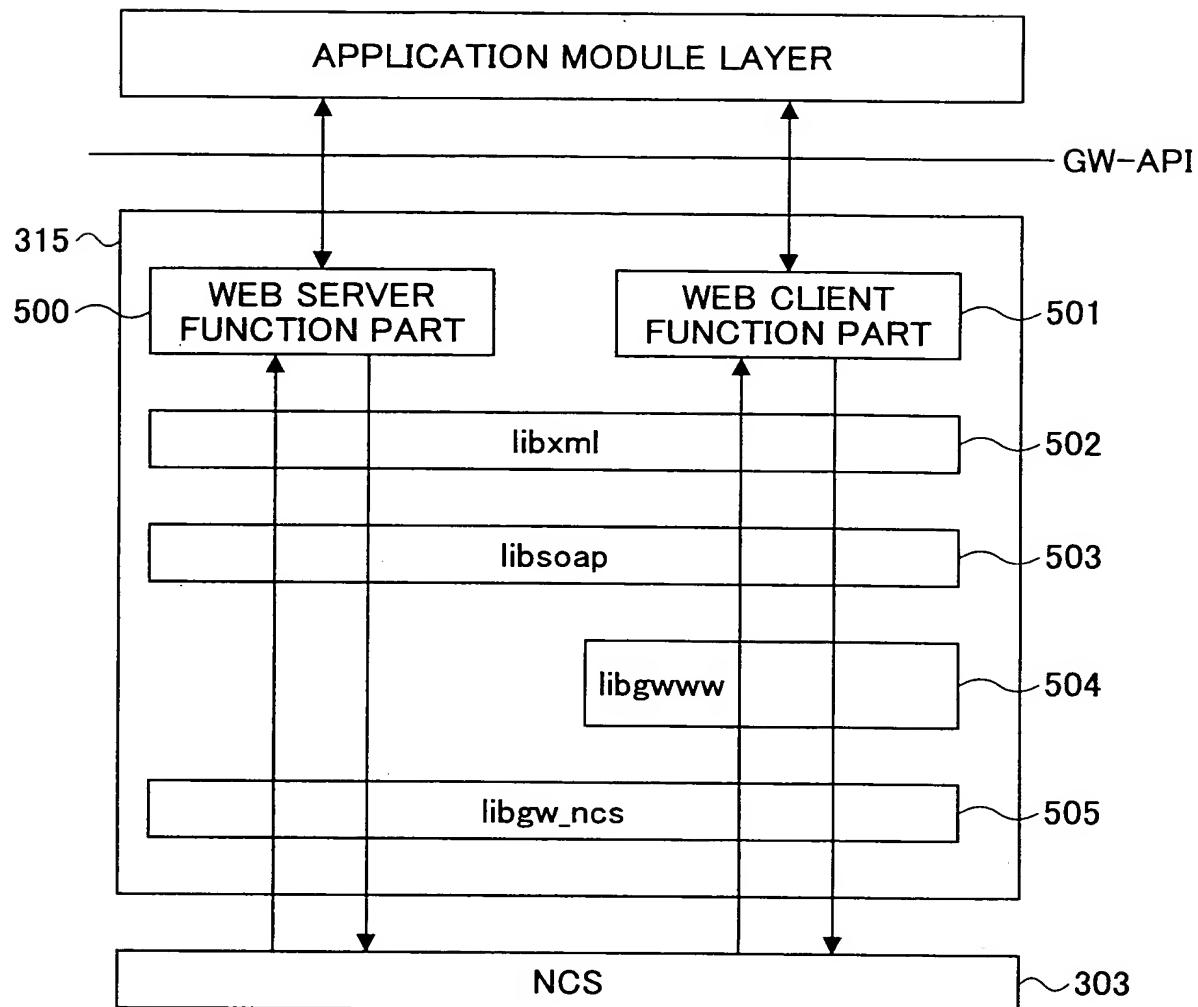


FIG.10

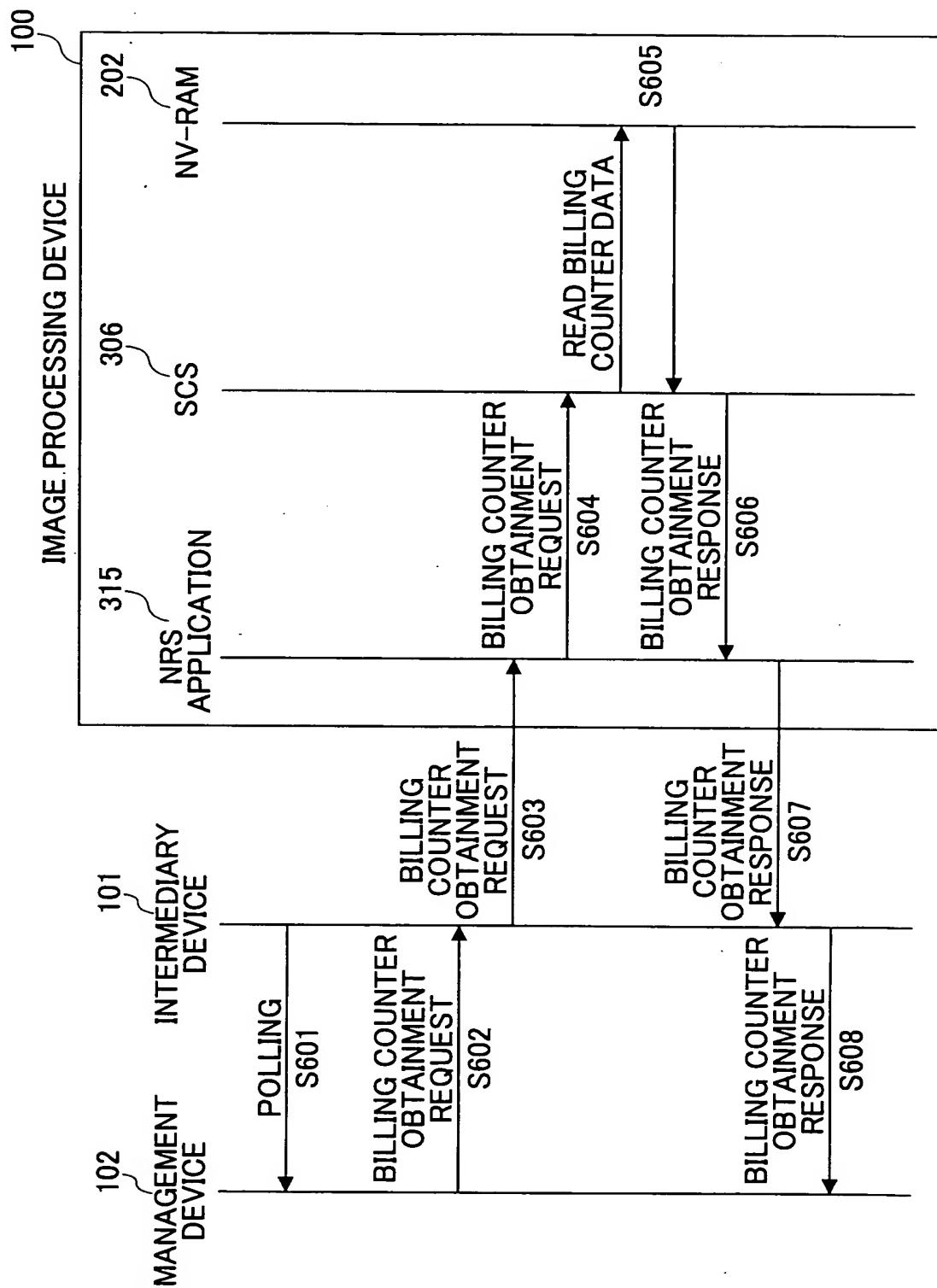


FIG.11

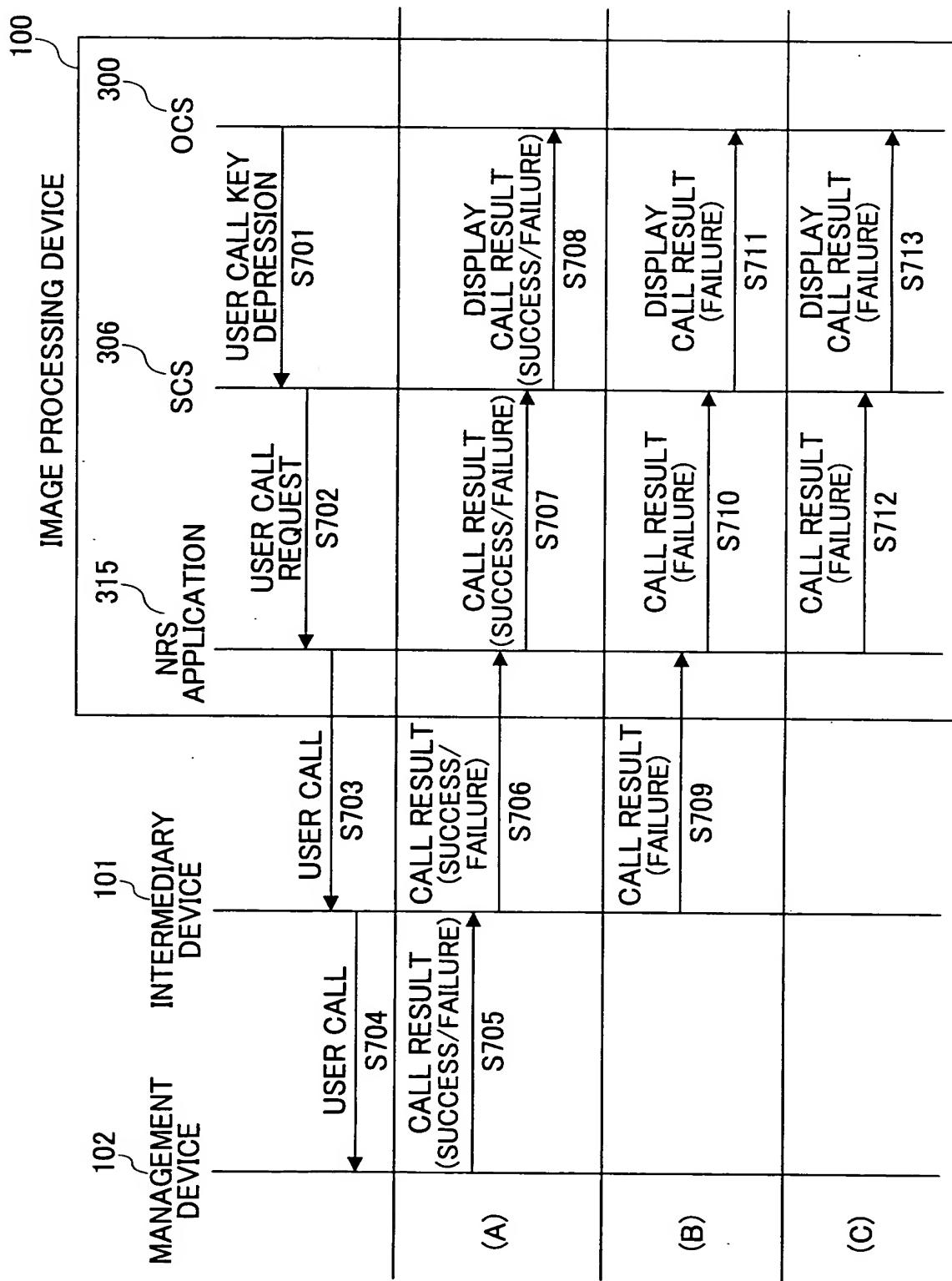


FIG.12

No.	USED/UNUSED	PASSWORD
A	USED	adfghjuhgk
B	USED	hj75fgukja
C	UNUSED	5rhjdebha
⋮	⋮	⋮
X	UNUSED	rtgfc6qkqa
Y	UNUSED	6q3fgdysa

FIG.13

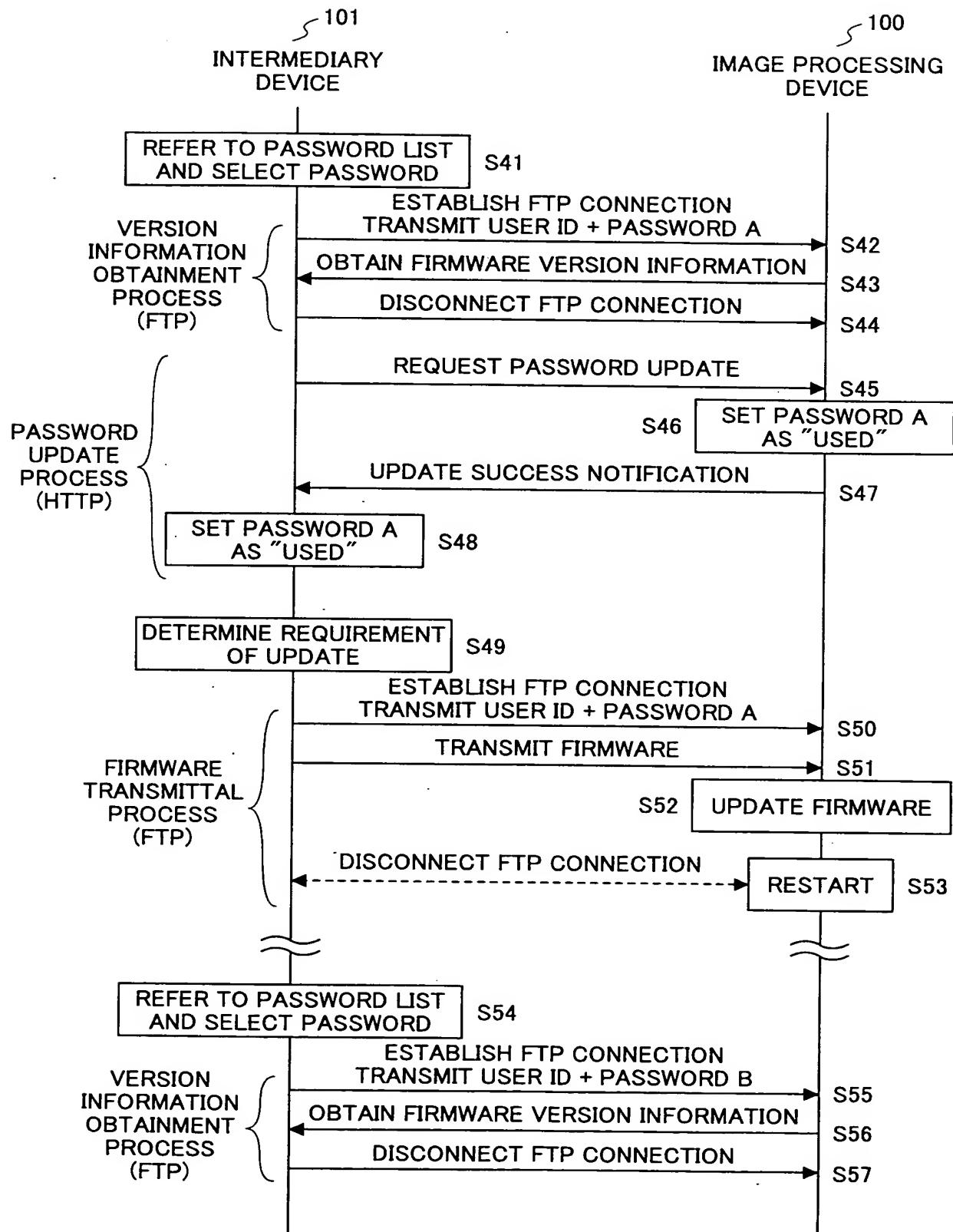


FIG.14

INTERMEDIARY DEVICE
 (SOFTWARE UPDATE DEVICE)

ROOT KEY CERTIFICATE
 PRIVATE KEY A
 PUBLIC KEY CERTIFICATE A

PROCESS OF
 INTERMEDIARY DEVICE

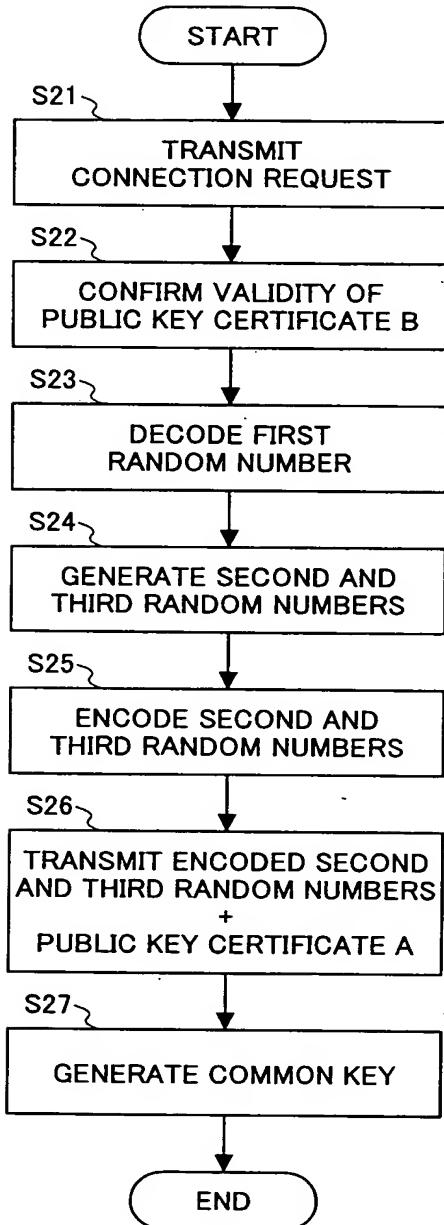


IMAGE PROCESSING DEVICE
 (TARGET UPDATE DEVICE)

ROOT KEY CERTIFICATE
 PRIVATE KEY B
 PUBLIC KEY CERTIFICATE B

PROCESS OF IMAGE
 PROCESSING DEVICE

CONNECTION REQUEST

ENCODED FIRST
 RANDOM NUMBER
 +
 PUBLIC KEY
 CERTIFICATE B

START

GENERATE FIRST RANDOM
 NUMBER, ENCODE WITH
 PRIVATE KEY B

TRANSMIT ENCODED FIRST
 RANDOM NUMBER + PUBLIC
 KEY CERTIFICATE B

CONFIRM VALIDITY OF
 PUBLIC KEY CERTIFICATE A

DECODE SECOND
 RANDOM NUMBER
 DECODE THIRD
 RANDOM NUMBER

RETURN SUCCESSFUL
 CERTIFICATION RESPONSE

GENERATE COMMON KEY

ENCODED SECOND AND
 THIRD RANDOM NUMBERS +
 PUBLIC KEY CERTIFICATE A

SUCCESSFUL CERTIFICATION
 RESPONSE

S36

S37

END

FIG. 15

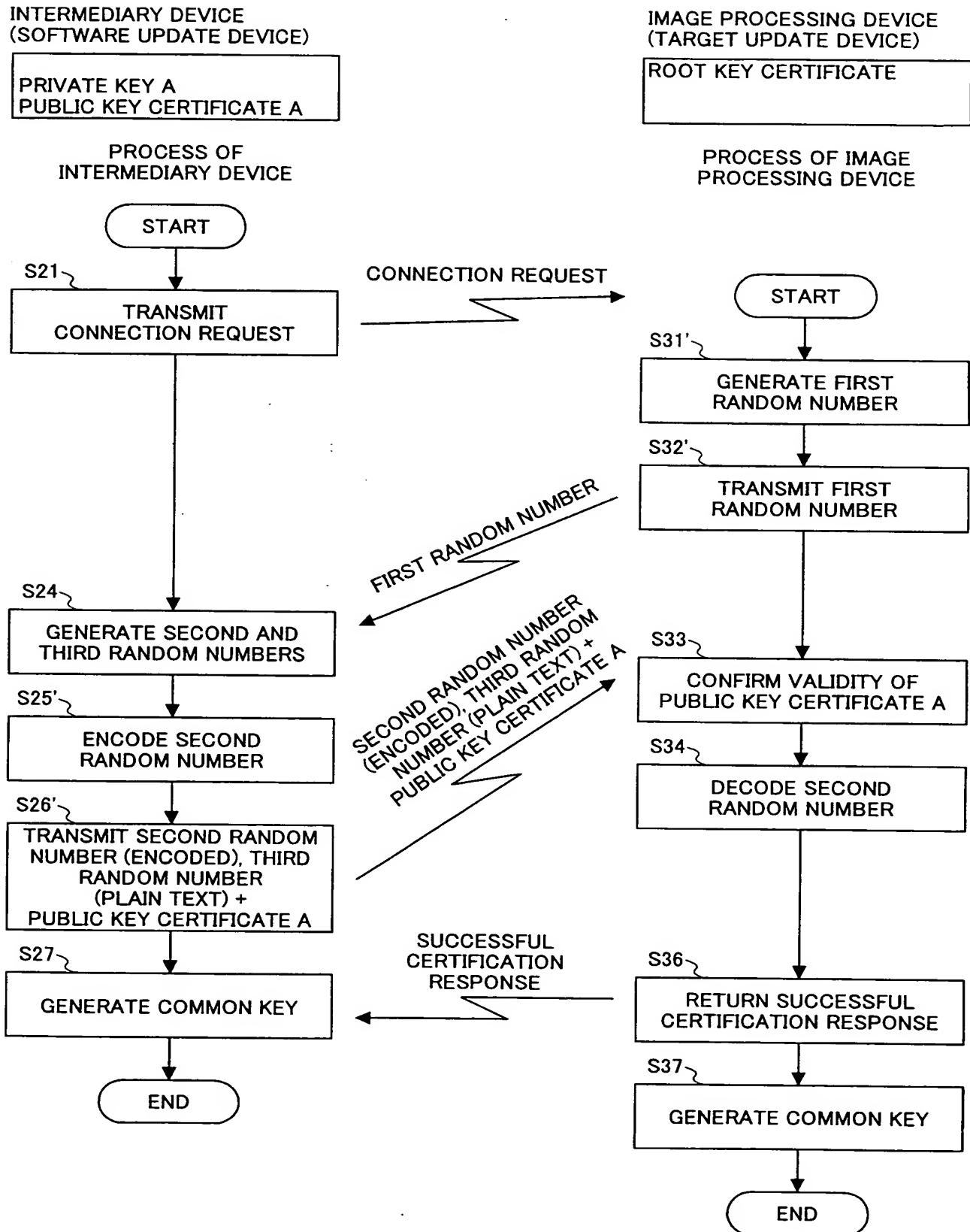


FIG.16

INTERMEDIARY DEVICE
 (SOFTWARE UPDATE DEVICE)

ROOT KEY CERTIFICATE

PROCESS OF
 INTERMEDIARY DEVICE

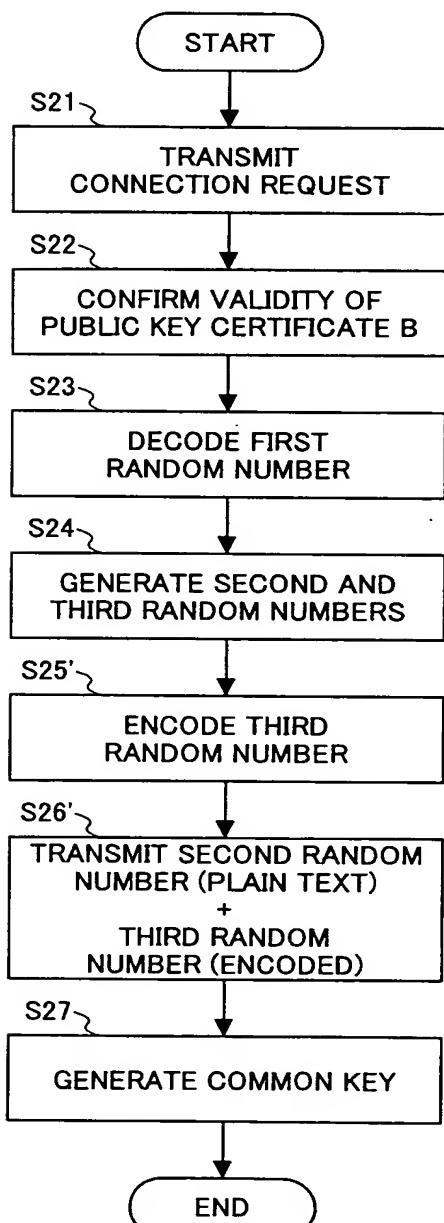


IMAGE PROCESSING DEVICE
 (TARGET UPDATE DEVICE)

PRIVATE KEY B
 PUBLIC KEY CERTIFICATE B

PROCESS OF IMAGE
 PROCESSING DEVICE

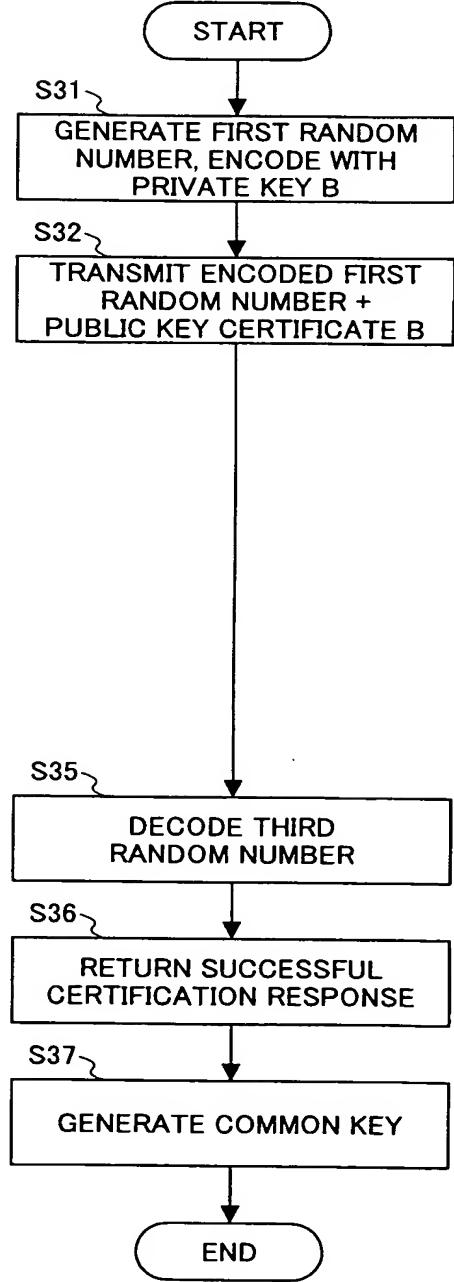


FIG.17

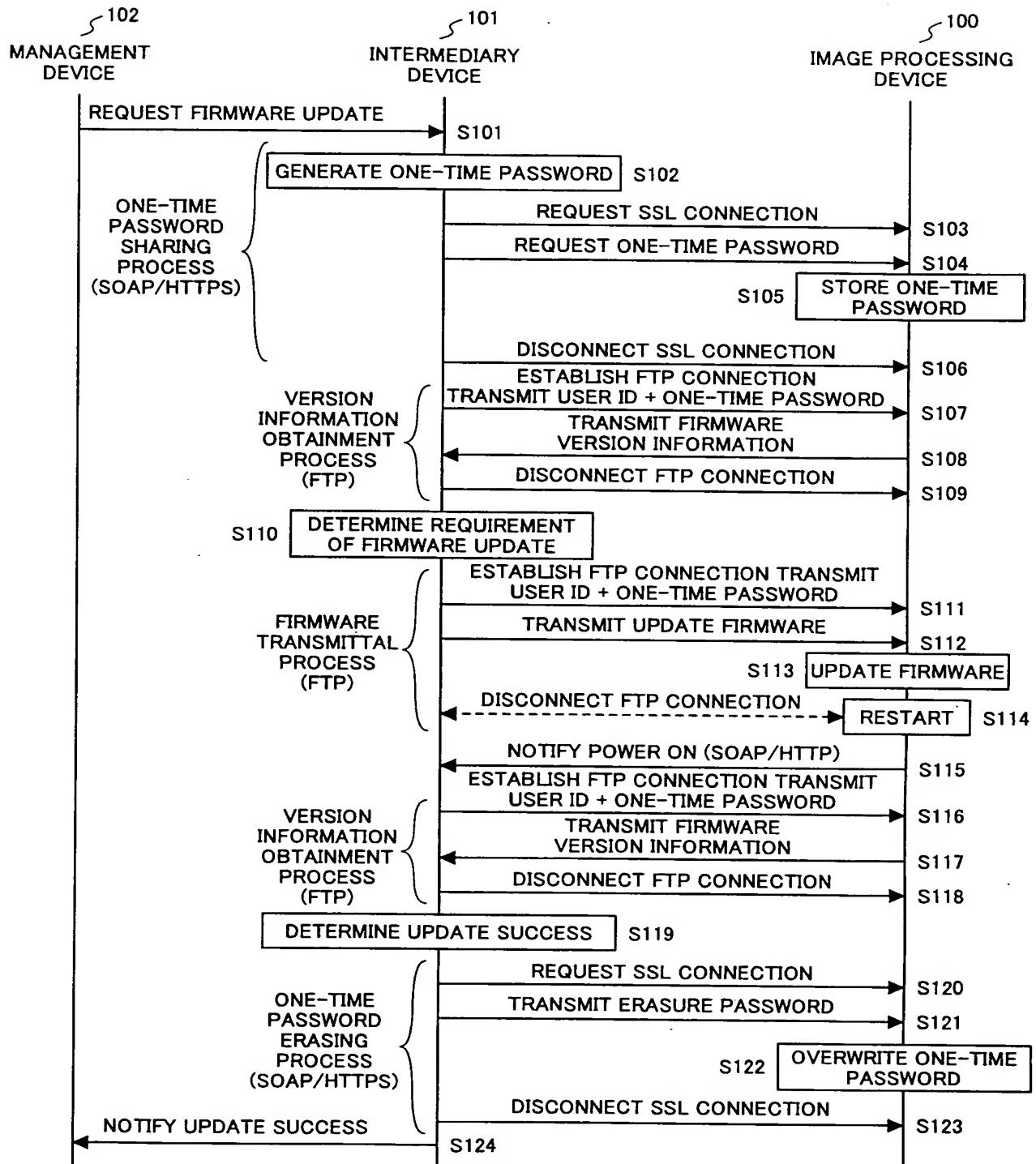


FIG.18

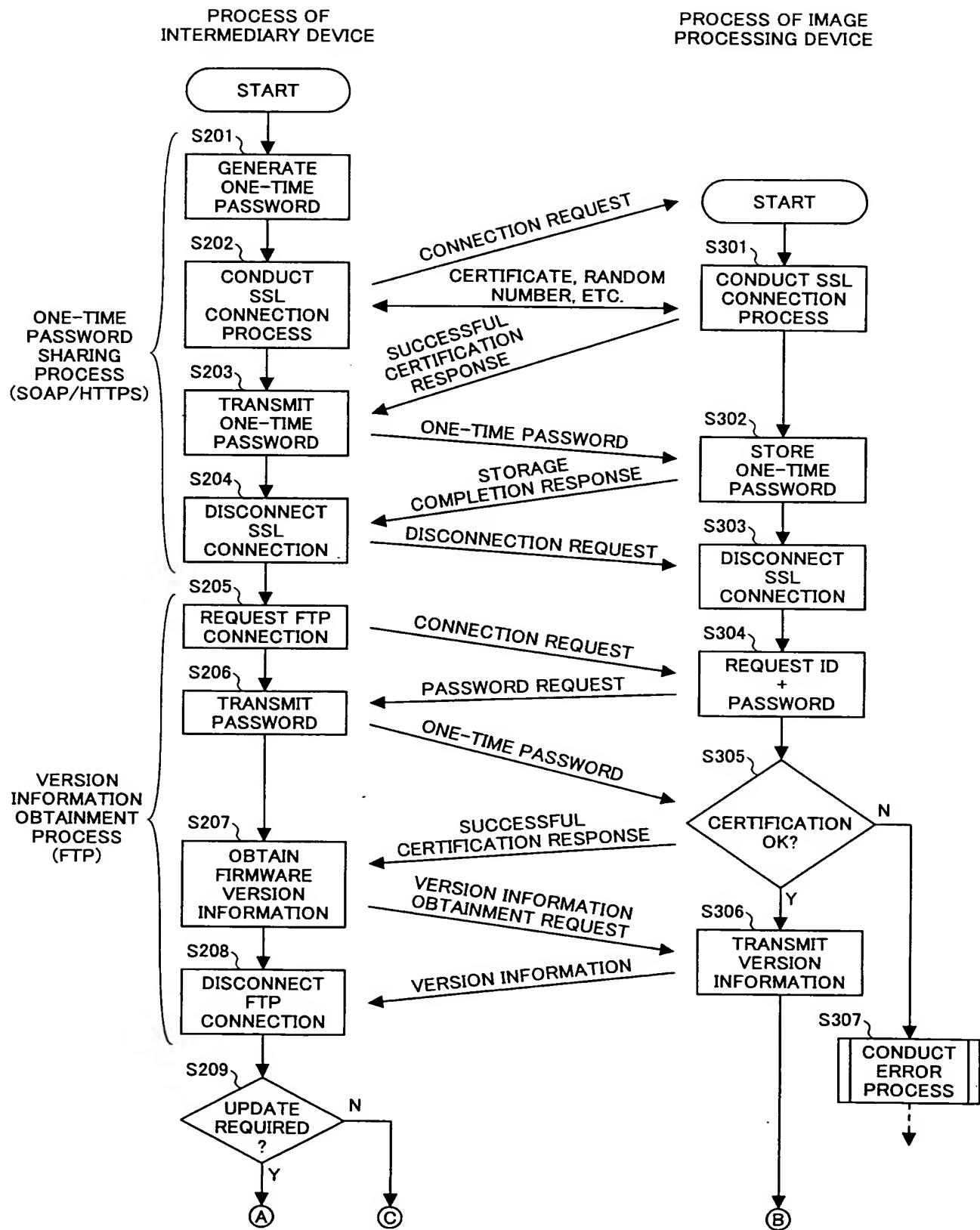


FIG.19

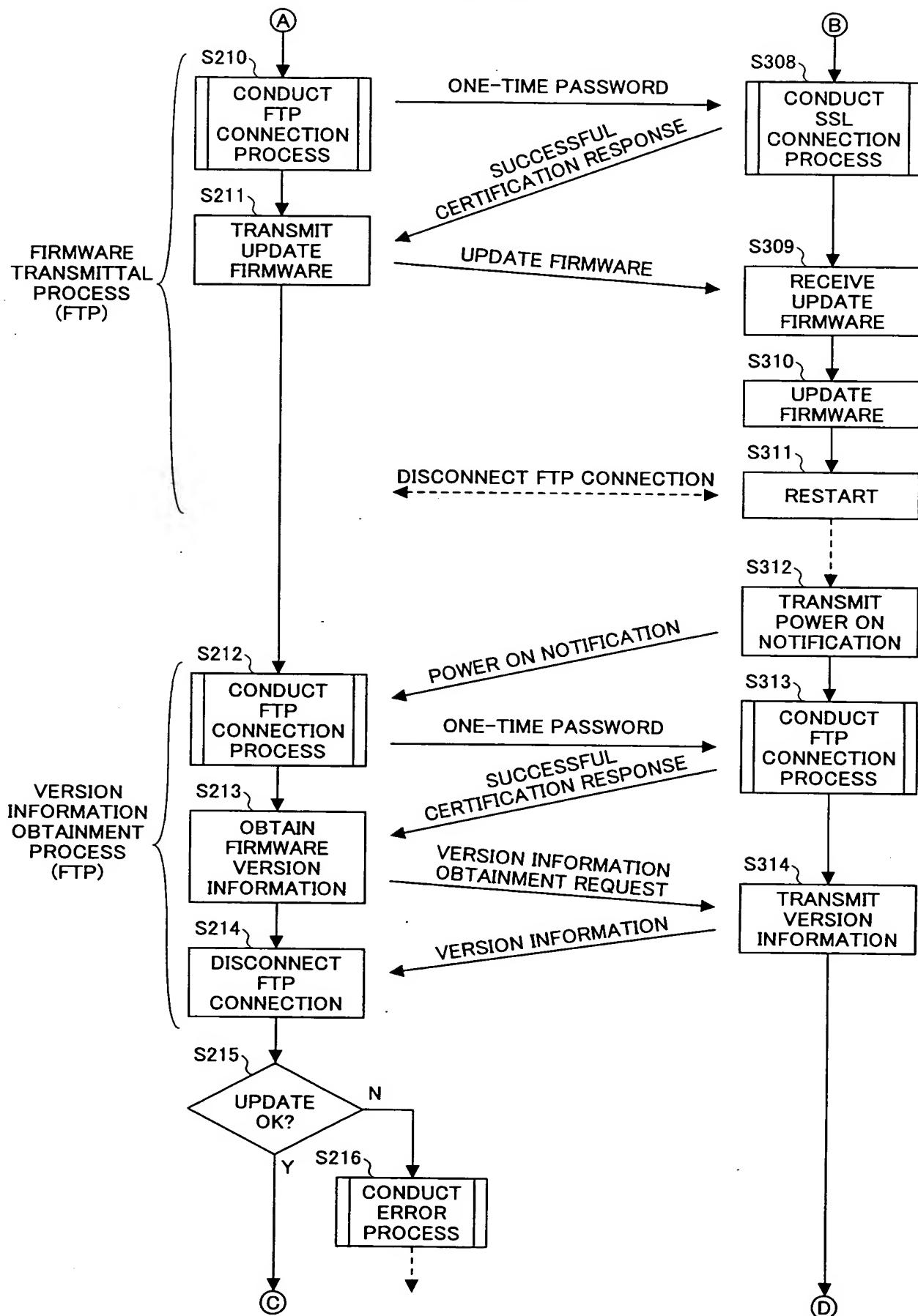


FIG.20

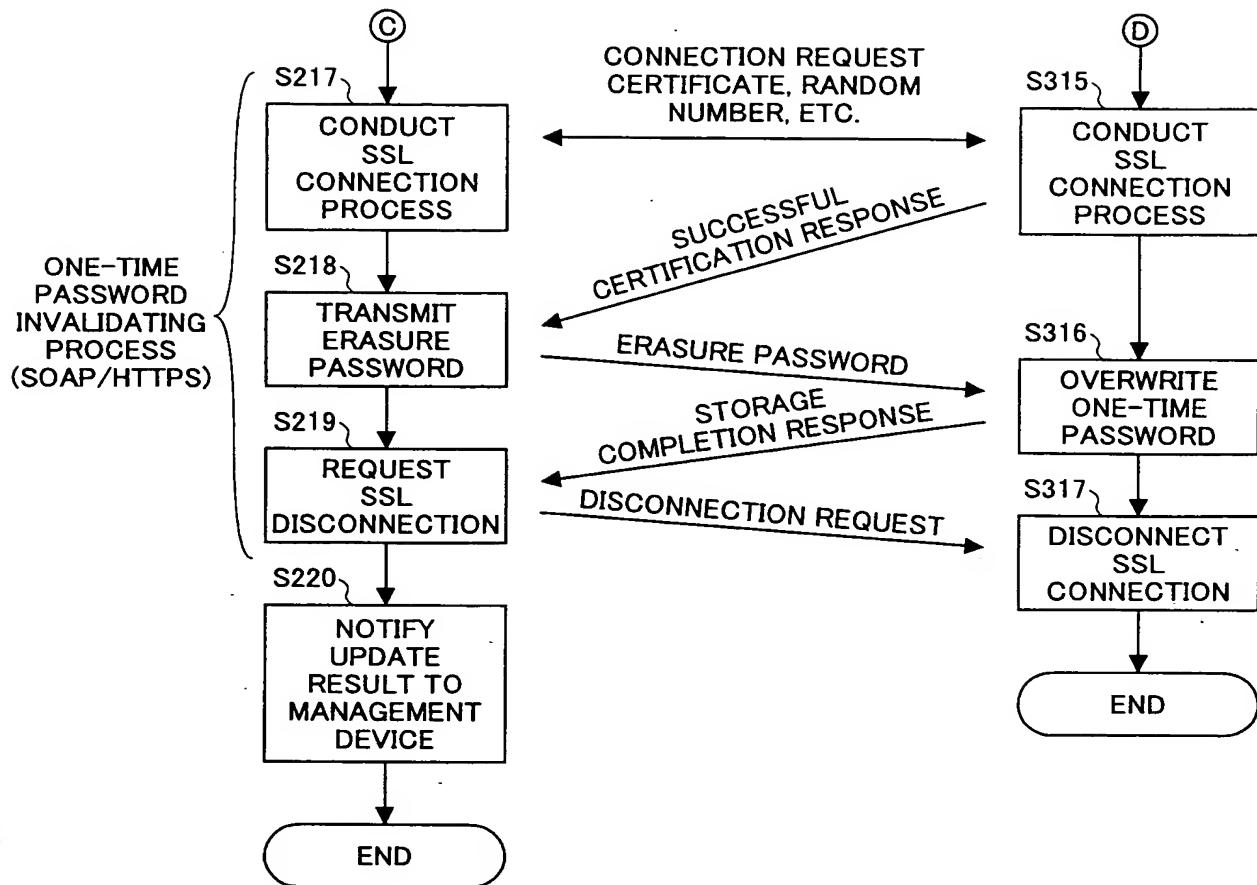


FIG.21

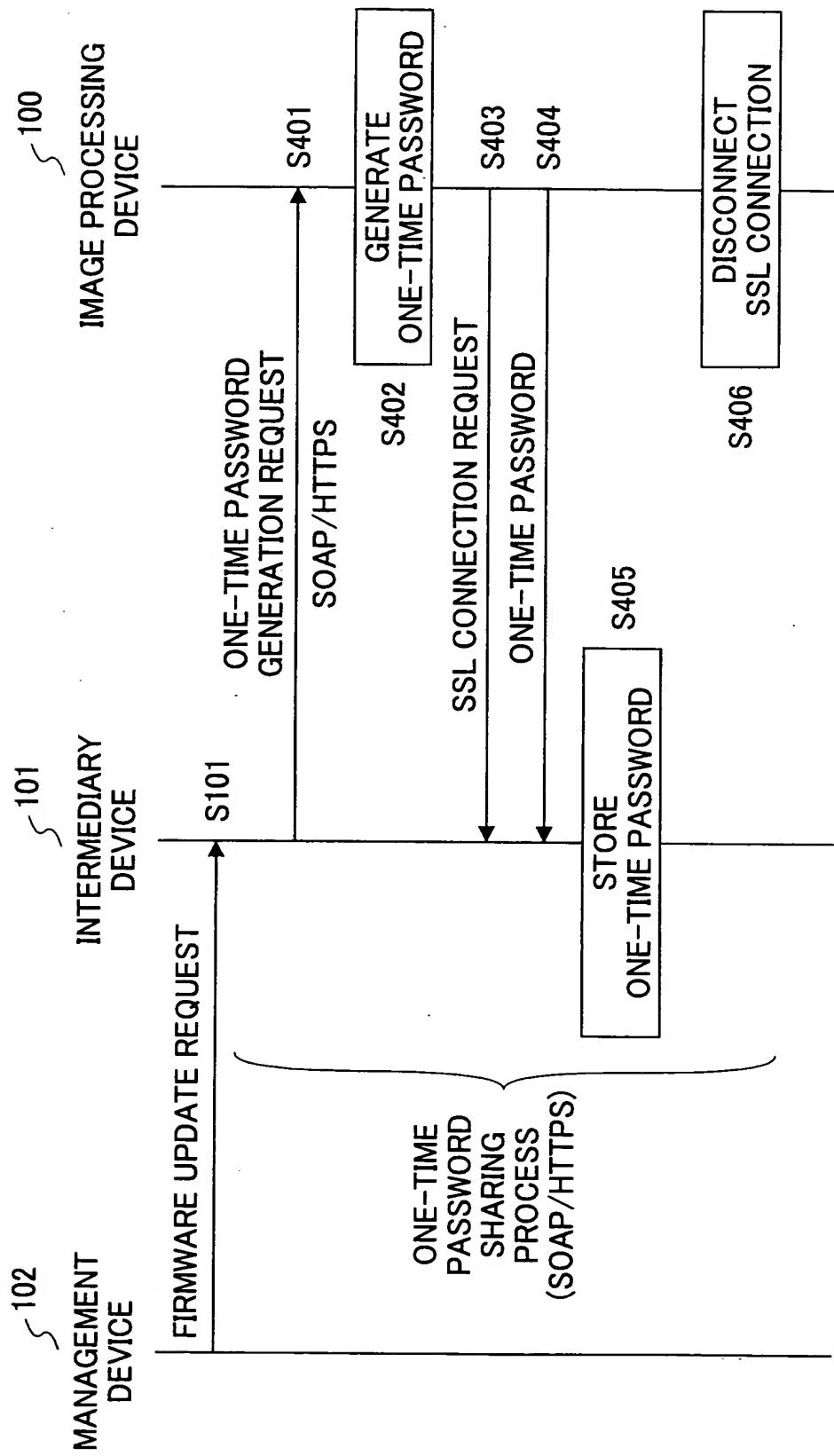


FIG.22

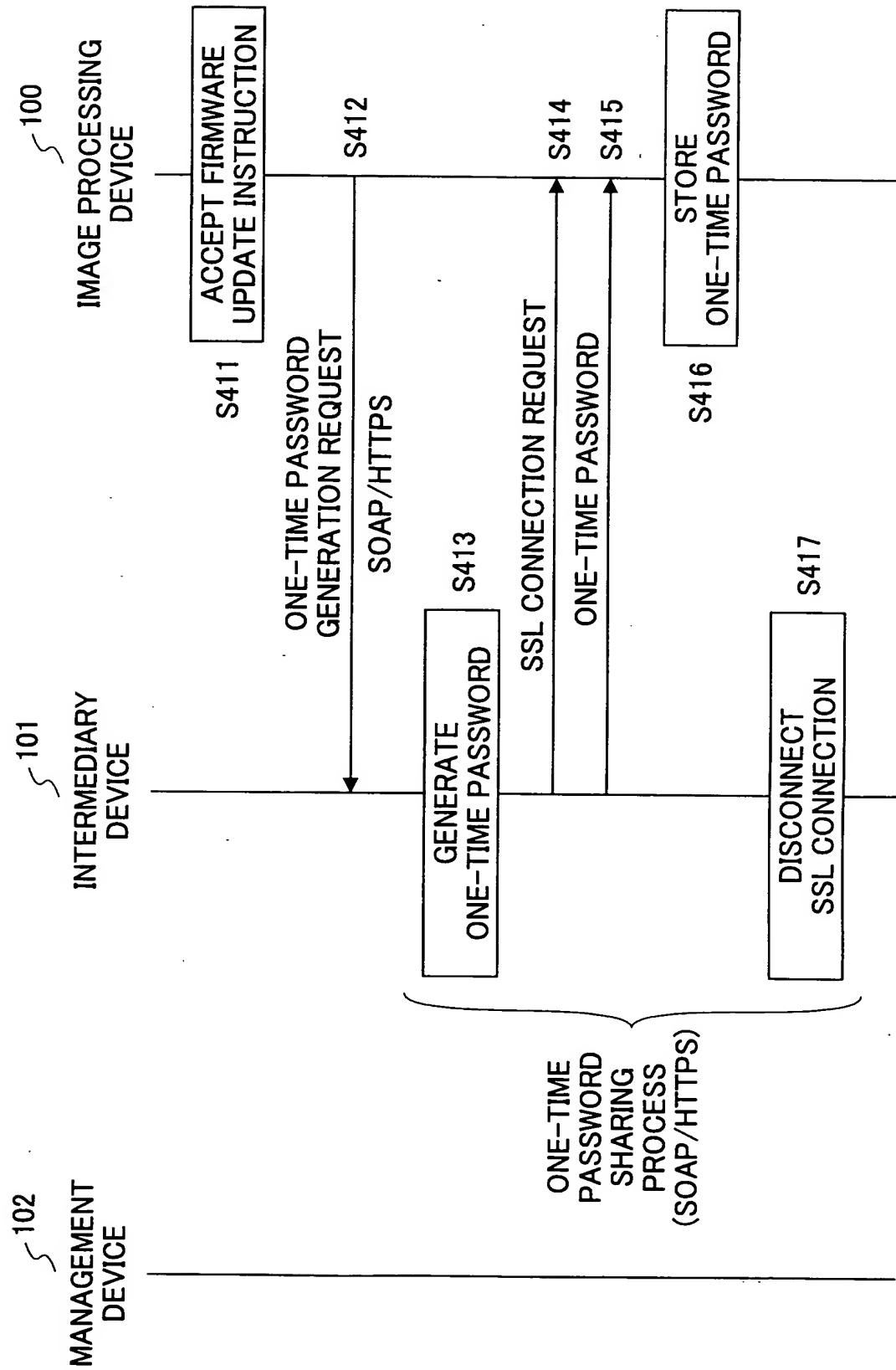


FIG.23

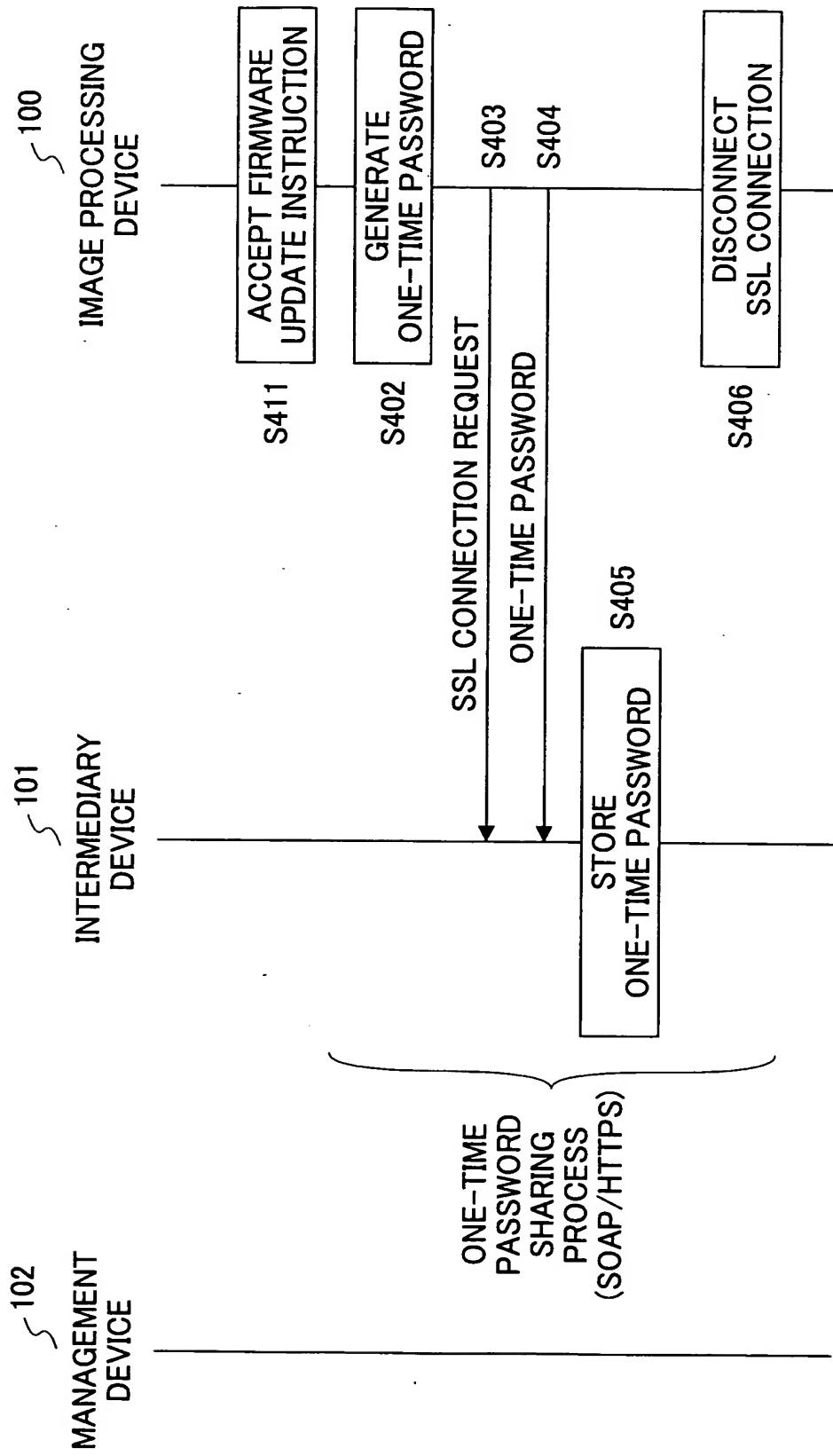


FIG.24

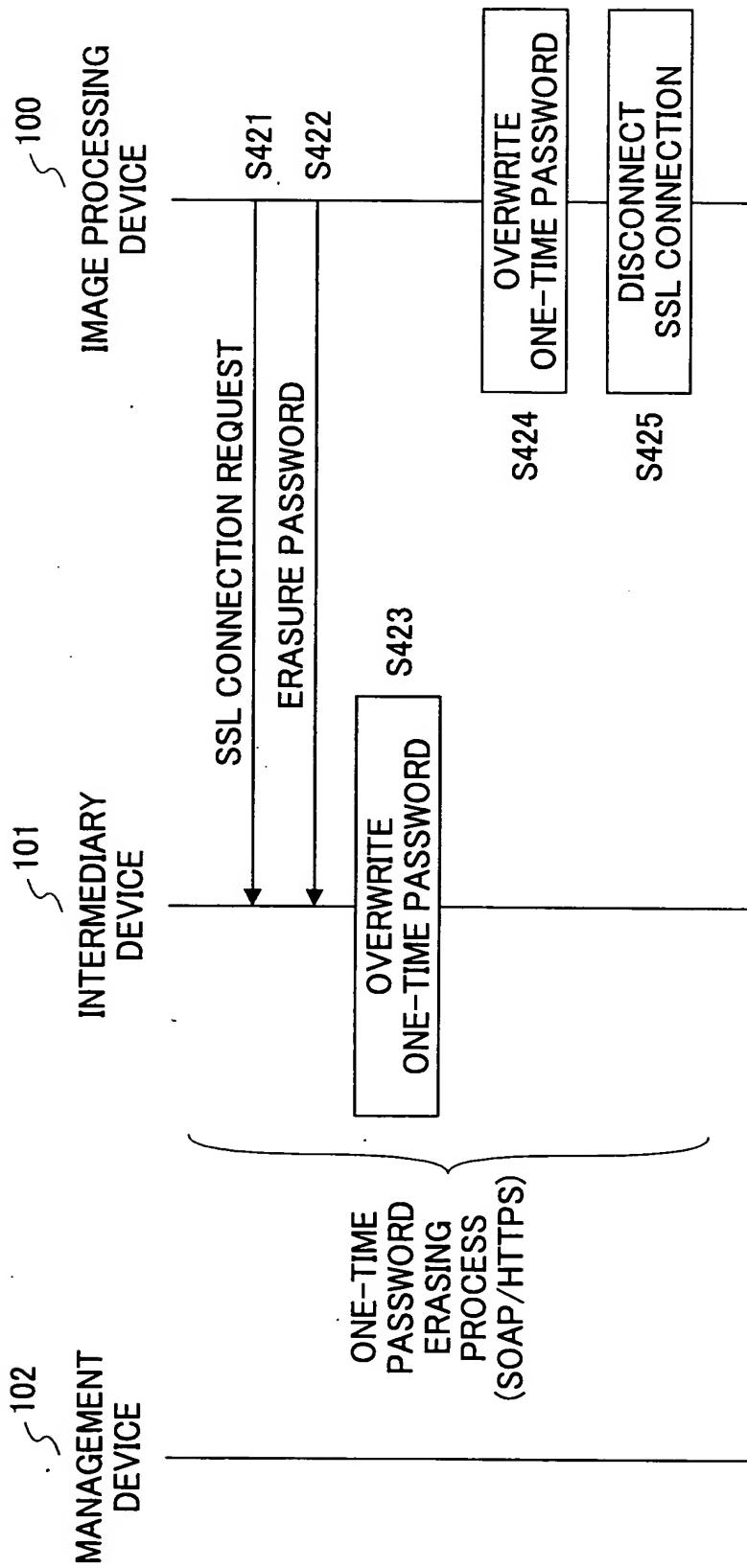


FIG. 25

3000

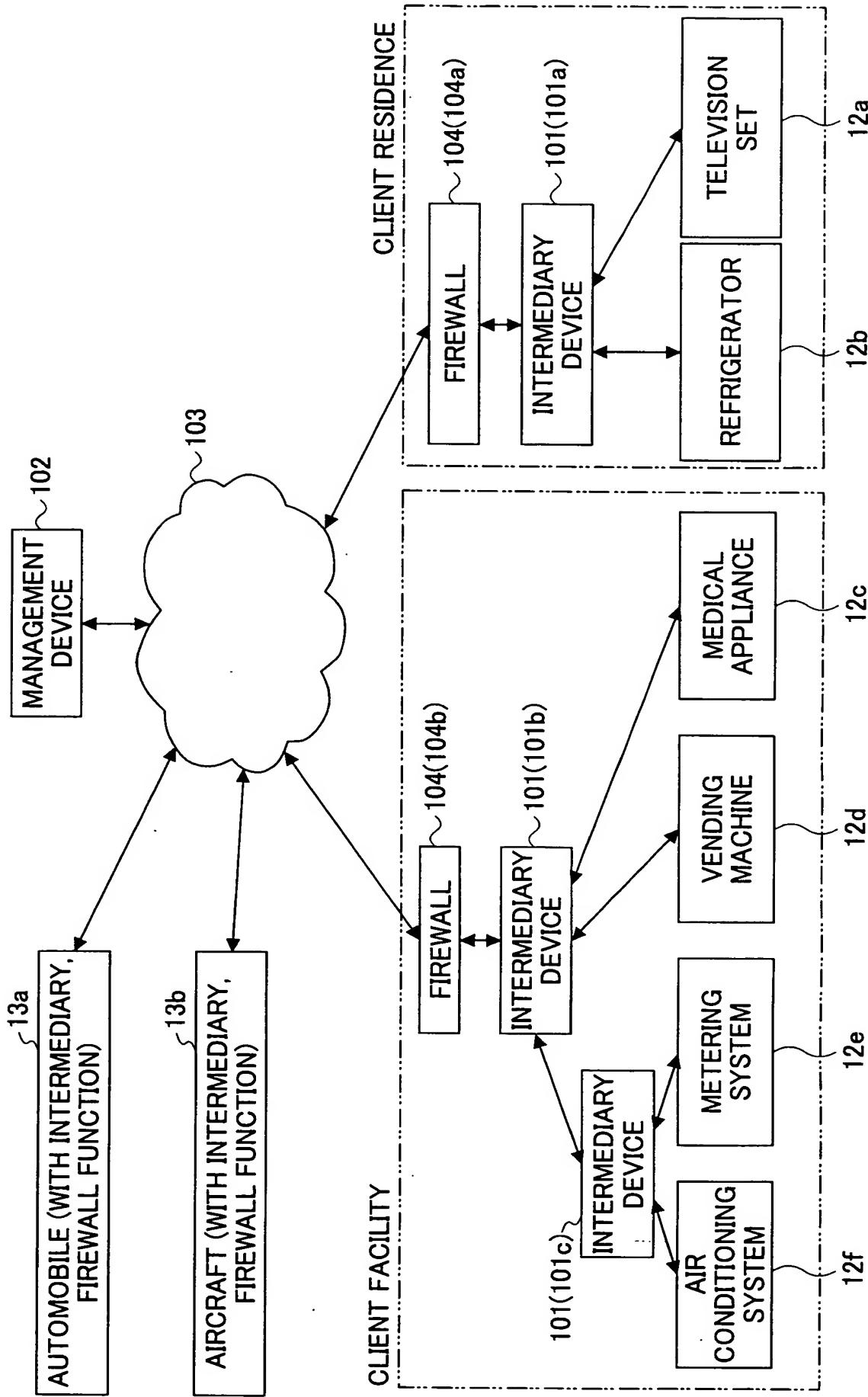


FIG.26

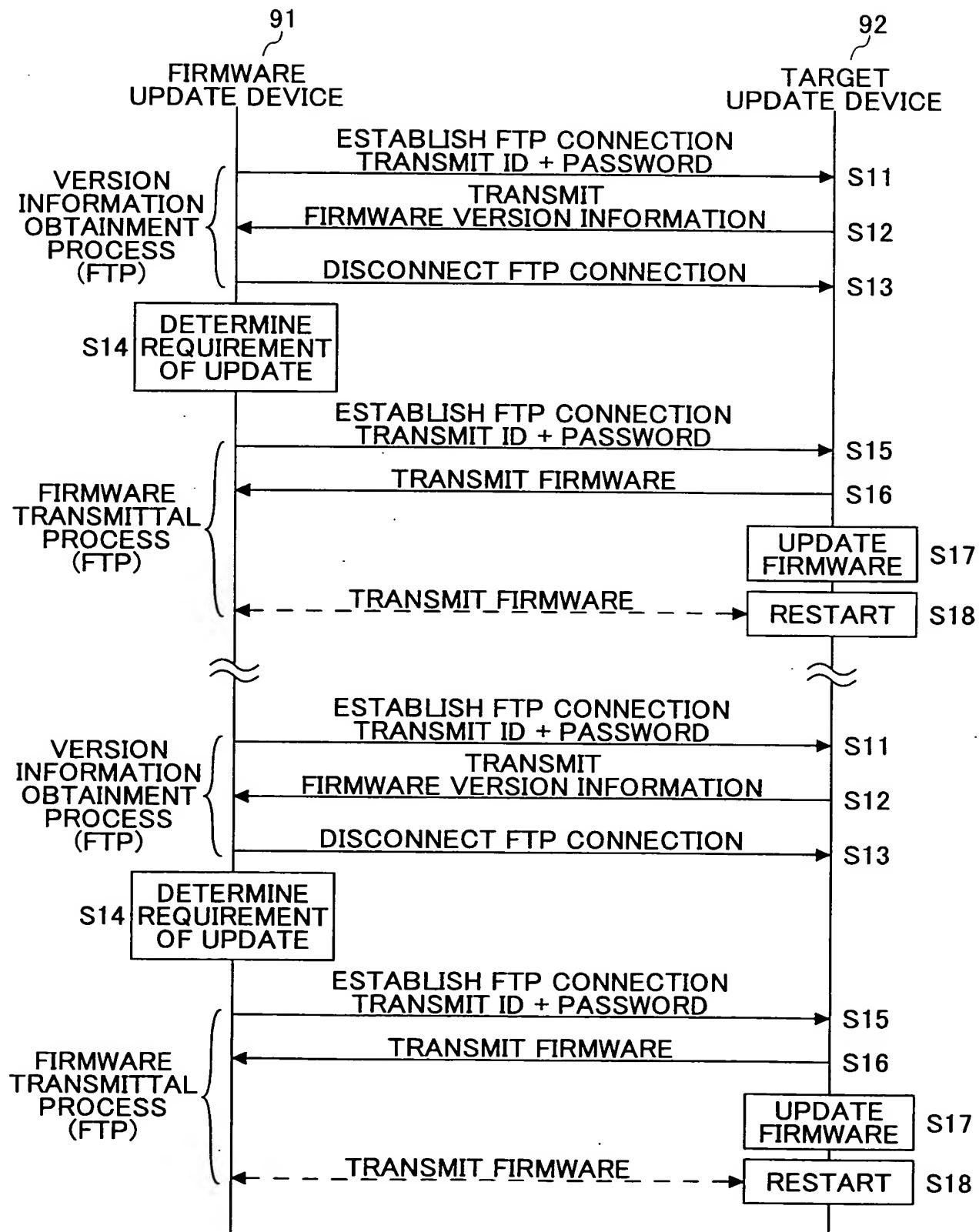


FIG.27

